FIG. 1

CENTRAL AXIS OF VEHICLE

AXIS DIRECTION OF VEHICLE
(SHOOTING DIRECTION)

OPTICAL AXIS 01 OF MAIN CAMERA

HORIZONTAL
VIEW ANGLE

AREA OF
3-D DISTANCE
DISTRIBUTION

2

5
3

4

1

IMAGE
PROCESSING
UNIT

6

COMPARATIVE IMAGE   REFERENCE IMAGE

SEARCH AREA

FIG. 2A   SMALL REGION

FIG. 2B

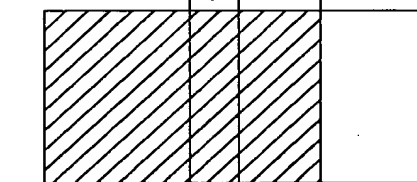*FIG. 2C*
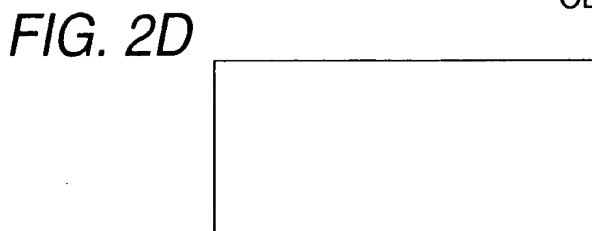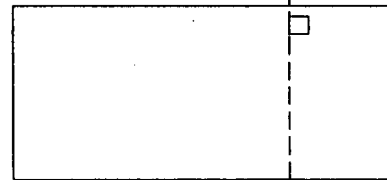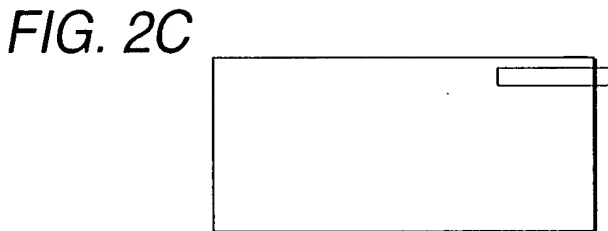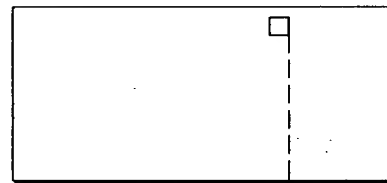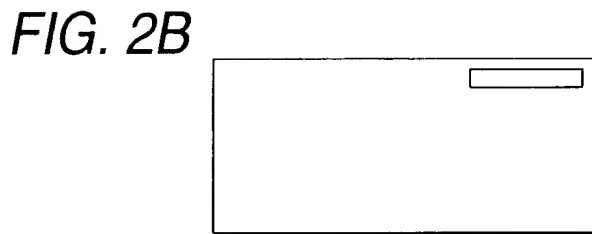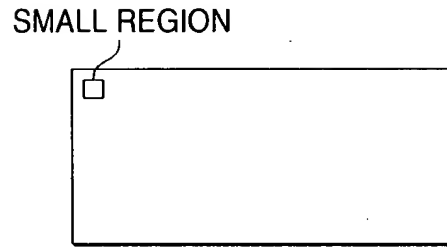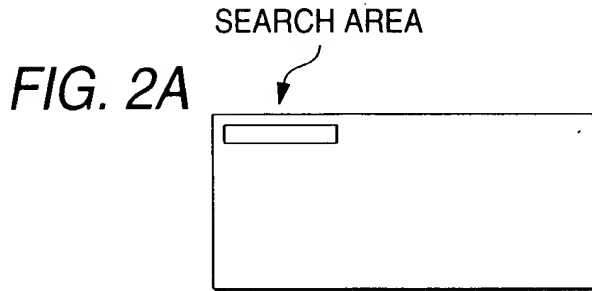
CENTRAL AXIS
OF VEHICLE BY
OBLIQUE-ANGLE
MOUNTING

CENTRAL AXIS
OF VEHICLE
BY FORWARD-
DIRECTED
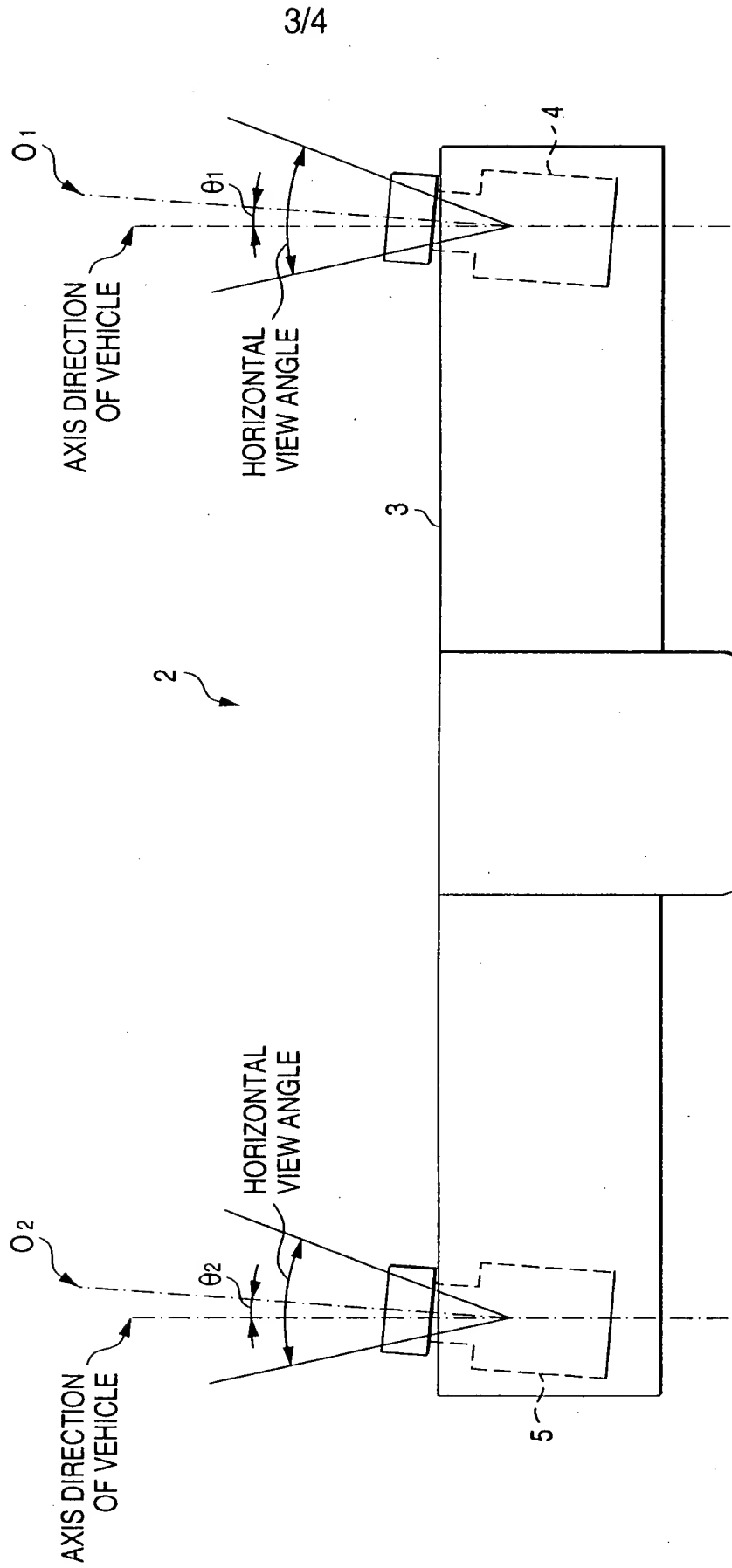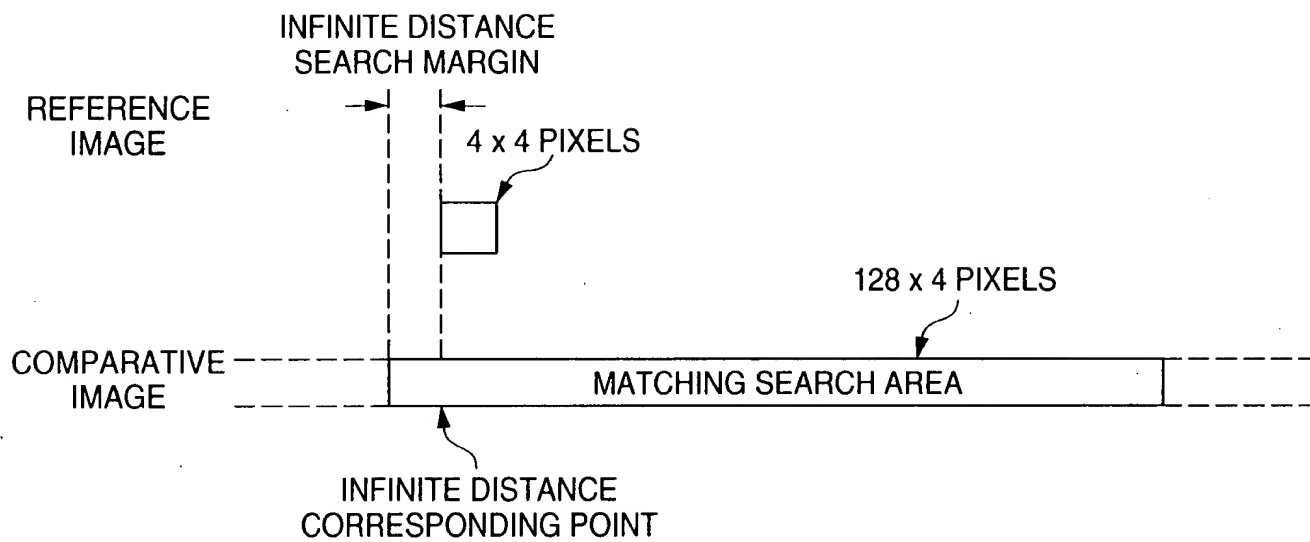MOUNTING

FIG. 2D

AREA OF 3-D DISTANCE
DISTRIBUTION

FIG. 3

O_1

AXIS DIRECTION
OF VEHICLE

θ_1

HORIZONTAL
VIEW ANGLE

4

3

2

HORIZONTAL
VIEW ANGLE

θ_2

O_2

AXIS DIRECTION
OF VEHICLE

5

FIG. 4

INFINITE DISTANCE
SEARCH MARGIN

REFERENCE
IMAGE

4 x 4 PIXELS

128 x 4 PIXELS

COMPARATIVE
IMAGE

MATCHING SEARCH AREA

INFINITE DISTANCE
CORRESPONDING POINT